

**From:** "Fry. Vicki (MSA)" <fryv@SacCounty.NET>  
**To:** "Patrick Morris" <pmorris@waterboards.ca.gov>  
**Date:** 2/14/2007 10:37:38 AM  
**Subject:** Recommendations for Offset Language in January 07 Draft BPA

Patrick,

Thank you for meeting with us, all of us, last Friday. We appreciate that staff is working hard to take into consideration stakeholder concerns and to adjust the BPA, to the extent practicable. We recognize you are on a short time schedule to get the draft BPA formally released prior to the March workshop. As a result, we conducted a very quick review and did our best to identify our major concerns, which I've summarized below, in case I was not clear at our meeting on Friday. As we conduct a more thorough review, we anticipate having additional comments for your consideration.

I have attached our suggested revisions to the Pilot Offset Program Section of the January 07 version of the draft BPA language, in red-line strike-out, for your ease in review and consideration. I have also included comments along with the changed language in an attempt to explain why we seek to change or add the language. If what we've suggested is not something you are comfortable including, please, feel free to call myself, or Terrie Mitchell, to discuss so that we may have an opportunity to come to some agreement on language that will provide the specificity, clarity, and detail that we believe to be required to encourage and provide incentive for participating in an offset pilot program.

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The other major issues that we highlighted at the meeting on Friday were as follows:

- 1) The intent of the stakeholder group's request that the TMDL BPA include a process that involved an advisory panel was to build a look-back provision to obtain peer advice on the overall TMDL implementation program. Can the BPA include this look-back provision as the initial priority for an advisory panel? The primary issue is that there is a need for a holistic prioritization of studies and overall review of those results.
- 2) What does RB staff hope to achieve with concentration allocations that can't be achieved with mass allocations?  
(Patrick, my understanding of your response to this concern, based on what was said at the meeting, was that you would remove the concentration allocation columns from Table B, and presumably other Tables, where applicable.)
- 3) How does Regional Board staff envision meeting the fish tissue objectives when the TMDL will not address the majority of (75%) methyl mercury sources impacting the Delta (none of the tributaries and most, 80% of the open water sources)? Which of the sources in the tributaries and open waters are on-going as opposed to uncontrollable sources (such as sediment flux, bank erosion)?

4) We need a strong vehicle to provide certainty of the offset approval and credit arrangement that reflects agreement and buy-in from the Regional Board, SWRCB and USEPA, such as Basin Plan language, or an equivalent.

Thanks again for your patience and hard work regarding this process.

Regards,

Vicki Fry, P.E.  
Associate Civil Engineer  
Water Quality Division, Policy and Planning  
Sacramento Regional County Sanitation District  
10545 Armstrong Avenue Suite 101  
Mather, California 95655  
ph: (916) 876-6113  
fax: (916) 876-6160

Begin at the beginning,  
and when you get to the end,  
stop. - MadHatter

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## DRAFT BASIN PLAN AMENDMENT

### Pilot Mercury Offset Program<sup>[S1]</sup>

By [8 years after adoption of the Amendment], the Regional Board intends to consider adoption of an offset program to allow dischargers to offset methylmercury and/or total mercury in their discharges by implementing more feasible or cost effective projects elsewhere in the watershed. The offset program will be consistent with any State Board offset policy that is developed. In the interim, the Regional Board will allow all mercury and/or methylmercury dischargers to conduct pilot offset projects, such as the Mercury Offset Project described in Appendix XXX<sup>[S2]</sup>. The purpose of pilot offset projects would be to promote early implementation of mercury reduction projects, while, at the same time, providing information that can be used to develop the final offset program. To be most useful, the pilot offset projects should focus on projects that can be implemented relatively quickly. The pilot offset project shall be deemed to satisfy any and all implementation controls for total and methyl mercury set forth in this TMDL. The factors used to determine the applicable credit ratios for offsets include consideration of relative bioavailability; thus all crediting and offsets are expressed as total mercury loading but projects will result in offset for all forms of mercury. The Regional Board must approve any pilot offset project.

During the pilot program, ~~the offset proponent shall conduct Characterization and Control Studies to determine the feasibility of on-site controls for methylmercury and total mercury; any discharger proposing an offset demonstration project for credit toward its own loading control or load reduction responsibilities shall still conduct the Characterization and Control Studies of its own facility(ies) required by the BPA~~<sup>[S3]</sup>.

The Regional Board will use the following criteria to evaluate proposed pilot projects:

1. Proposed projects will be evaluated and credits calculated based on estimates of reductions in loads of mercury and/or methylmercury that would be expected to be achieved on an annual basis ~~in the Delta~~<sup>[S4]</sup>. The offset proponent shall submit documentation on ~~actual~~ the estimated reductions in total mercury or methylmercury loading ~~or concentrations to the Delta.~~<sup>[S5]</sup>
2. During the pilot program during Phase 1 of this TMDL, the baselines for purposes of generating offset credits are defined by the conditions existing as of the date this Basin Plan Amendment is adopted. <sup>[S6]</sup> ~~In cases where the site for the pilot project has a methylmercury allocationspecified baseline [shouldn't this also apply where the baseline is less well specified?] and the owner of the site intends to keep a portion of the credits generated from the offset demonstration project, the partners in the project must document, there must be clear agreement between the responsible parties and the Regional Board on how credit for the project will be apportioned, between the two dischargers.~~
3. The implementation of pilot offset projects ~~must~~ will not result in changes to the total methylmercury allocations that are applicable in the Delta.
4. The Regional Board preference is that pilot offset projects occur within the same watershed as the offset proponent's discharge; however, the Regional Board will consider approving pilot projects in an adjacent watershed, when it can be demonstrated that the offset project will provide significant Delta-wide benefits. ~~In this case, load and waste load allocations would need to be adjusted. At the end of Phase 1, the Regional Board will review and adjust, as appropriate, the allocations, percent reduction requirements, goals, and objectives established in this BPA.~~ <sup>[S7]</sup>
5. The pilot offset project proponent shall submit documentation of the estimated mercury load reduction achieved after the project is implemented.

The Regional Board may consider approving a pilot offset project that is not expected to result in long term (at least 20 years) annual load reductions if the project would result in significant short-term improvements. The discharger implementing the project could receive an extension on their time schedule for meeting their own methylmercury allocations. Methylmercury and total mercury credits earned in the pilot program may be used to offset methylmercury allocation and total mercury limit requirements after 2015.

The Regional Board will at a minimum, consider pilot offset projects for the following sources: mercury and gold mine sites, Cache Creek Settling Basin, in-stream contaminated sediments, NPDES MS4 discharges, NPDES facilities, wetlands, irrigated agriculture, flood conveyance and water management activities, or other Regional Board approved projects.

## Appendix XXX

### SRCSD OFFSET DEMONSTRATION PROJECT FOR MERCURY (ALL FORMS)

#### **Background and Applicable Policies**

The Regional Water Board supports mercury offset projects to reach water quality goals more rapidly and at a substantial economic savings over alternative approaches. Mercury Offsets are a viable regulatory option for compliance with mercury water quality goals. USEPA's 2003 policy on water quality trading (USEPA, 2003) establishes that "the Clean Water Act and federal regulations provide authority to incorporate provisions for trading (and/or offsets) into NPDES permits issued to point sources and for trading under TMDLs that include provisions for trading to occur." As a delegated state under the Clean Water Act, California has exercised this authority in supporting the development and implementation of a specific offset project by Sacramento Regional County Sanitation District (SRCSD) intended to advance water quality goals and also to provide information and experience as contributions to development of a regional offset program for the Central Valley.

The State Water Board has determined that "...neither the Clean Water Act nor the California Water Code should be used as a means to leverage existing point source discharges as a means of forcing dischargers to bear more than their fair share of responsibility for causing or contributing to any violation of water quality standards. In this context 'fair share' shall refer to the dischargers' proportional contribution to the impairment." (Resolution No. 2005-0060, dated 7 September 2005.)

The SRCSD conducted and completed in February 2005, a comprehensive mercury offset feasibility study as required in Regional Water Board Order 5-00-188, the August 2000 NPDES permit governing discharges from the Sacramento Regional Wastewater Treatment Plant (SRWTP) to the Sacramento River. The objective of the study was to evaluate the feasibility of candidate mercury load reduction projects to offset mercury loadings to the Sacramento River from the SRWTP. The study was performed with significant input and direction from the Regional Water Board, State Water Board, USEPA and other stakeholders in an open working group format.

SRCSD identified and evaluated a number of mercury load reduction projects that would result in an equivalent or greater mercury load reduction than would be achieved through required removals at the SRWTP. The study, titled “Mercury Offset Feasibility Study (February 2005),” is available from the Regional Water Board, and has been relied on in establishing this demonstration of implementation.

Mercury is addressed in the project on a total basis, recognizing that current science indicates that methyl mercury is the toxic form that accumulates in fish and causes the most problematic environmental impacts. Reducing total mercury within the watershed in the manner here specified for the SRCSD offset program addresses methyl mercury.

### **Offset Crediting and Applicability**

SRCSD may discharge total mercury loads in excess of the waste load allocation for the SRWTP specified in this TMDL, up to the amount of any available credit. Credits shall accumulate as specified below, and shall be expended as specified by SRCSD. Credits shall accrue either by virtue of discharge at the SRWTP below applicable mass discharge limits or through reduction of mercury loads at other locations in the watershed. Accrued credits shall remain available until expended.

The offset project shall be deemed to satisfy any and all implementation controls for total and methyl mercury set forth in the Delta Mercury TMDL including any amendments thereto, throughout the life of the offset project; i.e., until all accrued credits are expended; in this regard, the offset credit for the SRWTP for total mercury satisfies any WLA for either total mercury and methylmercury. The factors used to determine the applicable credit ratios for offset include consideration of relative bioavailability; thus all crediting and offset are expressed as total mercury loading but the project will result in offset for all forms of mercury. Further, the Regional Water Board fully recognizes that SRCSD would be required to make a significant investment of public resources in a mercury offset project. It would be unreasonable and a disincentive to such projects, and hinder progress in overall water quality improvement, if SRCSD were to be subject to potential future regulatory controls which are inconsistent with the assumptions on which its mercury offset project is based or establish control requirements uniquely for methylmercury.

### **Crediting for Discharge Below Applicable Limits**

Credits will accrue for discharge below applicable mass loading limits as follows.

Regional Water Board Order 5-00-188 established an interim mass discharge limit for the SRWTP of 5.1 pounds per year. Order 5-00-188 also provided that mass loading over or under this limit shall be banked for future offset. Consistent with this order, credits of 8.05 pounds of mercury have accumulated as of October 2005 and credits shall continue to accrue on the same basis until renewal of the NPDES permit.

The mercury TMDL establishes a total mercury waste load allocation (WLA) for SRCSD of . Once the WLA has been incorporated in the NPDES permit for the SRWTP, credits shall accrue to the extent mass loading from the SRWTP discharge is below this level.

Crediting for discharge below applicable limits shall be at a ratio of 1:1. That is, SRCSD will receive one pound (or fraction thereof) of credit for every pound (or fraction thereof) by which mass loading is less than the interim limits of Order 5-00-188 or the WLA in this TMDL after its incorporation into the NPDES permit.

### **Crediting for Watershed Offsets**

Credits shall also accrue for actions taken to reduce mercury loading in other locations in the drainage of the Sacramento River as provided herein. The pursuit and implementation of watershed offsets is at the discretion of SRCSD but shall, if implemented, be governed by the criteria below.

Credits for watershed offsets shall accrue when the activity causing the credit is completed. Should the SRCSD need mercury credit in advance of completion of an offset activity, the Executive Officer may, in his/her discretion award credit in advance of completion of an activity, upon demonstration of meaningful progress towards implementation of the work plan for the activity.

The crediting system for watershed offsets incorporates multipliers, such that more than one pound of total mercury removal is necessary to achieve one pound of credit. The

multipliers are based on relative bioavailability, location, and uncertainty. The bioavailability factor or multiplier recognizes that methylmercury is the toxic compound formed through the transformation of total mercury under certain and variable environmental conditions and is the form of mercury that accumulates in fish tissue. Thus, inclusion of this factor provides a basis for crediting watershed offset projects based on total mercury reduction; the bioavailability factor causes increase in total load reduction required for offset credit. The Regional Water Board also recognizes that methylation of mercury occurs in the environment.

The measure of success for watershed offset projects is performance of actions that achieve total mercury load reduction in accordance with the criteria for awarding credit.

1. *Increased Sediment Trapping of Cache Creek Settling Basin.*

SRCSO may elect to provide increased maintenance of the Cache Creek Settling Basin (CCSB) through excavation and disposal of sediments originating in the Cache-Creek watershed, as described in Mercury Offset Feasibility Study (February 2005). This project would improve sediment trapping efficiency of the CCSB as well as extend its useful life, thus reducing mercury loading to the Sacramento River and Delta.

SRCSO shall receive one pound of credit for every 2.6 pounds of mercury removed from the CCSB. The pounds removed shall be calculated based on mercury assay values of the material removed.

2. *Other Watershed Offsets.*

If SRCSO does not elect to implement the CCSB project, it may implement an alternative project. The credit ratio for projects described in the Mercury Offset Feasibility Study (February 2005) shall be as reflected in the Mercury Offset Feasibility Study (February 2005).

**Relationship to Other Regional Water Board Activities**

The SRCSO offset project described herein shall direct future NPDES permits for the SRCSO. The SRCSO-specific offset project shall control over any future regional and/or statewide mercury offset program.



[S1]For clarity and ease of implementation, creditability should be addressed in this section, and not under every named source or source category.

[S2]Appendix XXX is provided at the end of this BPA for your consideration.

[S3]Regarding the original language, we agree that the BPA should clarify that anyone doing an offset demonstration project must still do the studies required of it, as stated in the relevant portion of the BPA for it individually, or as a member of a category of sources. However, the language needs to be more precise, as reflected in the proposed change.

[S4]To simplify this process, evaluation of offset projects should be based on performance of project activities, estimates of load reductions, and actually measured reductions after implementation of the project at the project site. This simplification is reflected in the changes proposed herein.

[S5]Documentation of actual reductions is part of the reporting function and should be listed separately. See new item added on documentation.

[S6]Establishing baselines in this manner would provide incentives and flexibility for offset projects to move forward in the watershed during Phase 1.

[S7]The language in the 3<sup>rd</sup> criteria conflicts with the last statement in 4<sup>th</sup> criteria. Deleting the last statement in the 4<sup>th</sup> criteria eliminates this conflict. The sentence that is added provides the Regional Board with the flexibility to adjust the BPA according to the results of Phase 1 studies and pilot offset projects.